

IN THE CLAIMS

Please amend the claims as follows:

Claims 1-36 (canceled)

Claim 37 (currently amended): A carbon-containing aluminum nitride sintered body ~~for use at 100°C to 1000°C comprising both of:~~

carbon whose peak cannot be detected on its X-ray diffraction chart or whose peak is below its detection limit thereon, said carbon being at least one selected from the group consisting of amorphous carbon and carbon forming solid solution in aluminum nitride crystal phase; and

crystalline carbon whose peak can be detected on its X-ray diffraction chart,
wherein said carbon and crystalline carbon are in a total amount of 200 to 5000 ppm in a matrix of aluminum nitride.

Claim 38 (previously presented): The carbon-containing aluminum nitride sintered body according to claim 37,

wherein said matrix contains a sintering aid comprising at least one selected from the group consisting of an alkali metal oxide, an alkali earth metal oxide, and a rare earth oxide.

Claim 39 (previously presented): The carbon-containing aluminum nitride sintered body according to claim 37,

wherein its brightness defined in JIS Z 8721 is N4 or less.

Claims 40-41 (canceled)

Claim 42 (previously presented): The carbon-containing aluminum nitride sintered body according to claim 37,

wherein said carbon-containing aluminum nitride sintered body has a volume resistivity of $10^8 \Omega \cdot \text{cm}$ or more at a temperature of 500°.

Claims 43-48 (canceled)

Claim 49 (currently amended): The carbon-containing aluminum nitride sintered body according to claim 37, wherein ~~the total amount is 20 to 2000 ppm~~ said carbon and crystalline carbon are in a total amount of 200 to 2000 ppm in a matrix of aluminum nitride.

Claim 50 (canceled)

Claim 51 (currently amended): The carbon-containing aluminum nitride sintered body according to claim 37, having ~~wherein the~~ a blend ratio of said carbon whose peak cannot be detected on its X-ray diffraction chart or whose peak is below its detection limit thereon to said crystalline carbon whose peak can be detected on its X-ray diffraction chart is 1/200 to 200/1 (weight ratio).

Claim 52 (currently amended): The carbon-containing aluminum nitride sintered body according to claim 37, having ~~wherein the~~ a blend ratio of said carbon whose peak cannot be detected on its X-ray diffraction chart or whose peak is below its detection limit thereon to said crystalline carbon whose peak can be detected on its X-ray diffraction chart is 1/100 to 100/1 (weight ratio).